

### **DETAILED ACTION**

1. This Office Action is in response to an AMENDMENT entered 03/08/2011.
2. The First office Action of 12/08/2010 is fully incorporated into this Final Office Action by reference.

### ***Status of Claims***

3. Claims 1-25 are pending in this application.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ullman et al (US 6,018,768) in view of Wu et al (US 6,326,982).

Regarding Claim 1, Ullman discloses a set-top box (STB) with a television and an auxiliary display device, with a method of changing program channels comprising:

(a) the STB (FIG.5, 140; Col 10 lines 22-25; as an alternative embodiment for receiving video) transmitting current tuned channel information to the auxiliary display device (refer but not limited to Col 5 lines 45-48; Col 7 lines 42-53; Col 9 lines 4-20; currently tuned channel information is inherently transmitted to a internet connection such as modem in order to receive corresponding URLs from the internet);

(b) the auxiliary display device determining a particular URL associated with the current tuned channel information utilizing the current tuned channel information provided by the STB

Art Unit: 2426

(Col 5 lines 3-10; Col 7 lines 12-30; Col 9 lines 4-20; by receiving and storing channel related URL information from alternate internet in advance, the modem then is able to determine a URL from among stored URLs for various programs/channels based on the received channel related information such as time stamp); and

(c) the auxiliary display device presenting the web content associated with the URL associated with the current tuned channel information on the display of the auxiliary display device (Col 9 lines 4-20; Col 10 lines 26-32; the modem then is able to display the web content on an alternative display device).

Ullman discloses transmitting tuned channel information to the internet connection device such as modem for receiving corresponding URLs for display but is not clear about transmitting the channel number to the internet connection device.

In an analogous art, Wu discloses using a channel parameter such as channel number at a certain time as a means to identify the corresponding Web address for internet access (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ullman's system to include a channel number as an alternative to identify the corresponding web site for auxiliary information access.

Alternatively, a person of skill in the art would have had good reasons to pursue the known options of using a channel number as an alternative for a selected program over a particular time period. It would require no more than "ordinary skill and common sense" to use the channel number as an alternative to represent a broadcast program.

Regarding Claim 2, Ullman further discloses the auxiliary display device presenting a hyperlink on the display, the hyperlink providing access to program channel data associated with a new tuned channel; and activating the hyperlink to change the current tuned channel to the new tuned channel (refer but not limited to Col 9 lines 20-23).

Regarding Claim 3, Ullman further discloses correlating the program channel data to a virtual channel map (VCM) stored in the STB (refer but not limited to Col 3 lines 52-55; Col 6 lines 44-48).

Regarding Claim 4, Ullman further discloses that a web browser residing in the auxiliary display device using the URL to access a web site, the web site providing the web content to be presented on the display of the auxiliary display device (refer but not limited to Col 3 lines 32-38).

Regarding Claim 5, Ullman further discloses step (a) is implemented in response to a user changing the current tuned channel (refer but not limited to Col 5 lines 62-67; Col 6 lines 1-4).

Regarding Claim 6, Ullman further discloses from Claim 1 that step (a) is implemented in response to a user playing back a previously recorded program viewed on the television, the recorded program including program channel data (refer but not limited to Col 10 lines 45-48).

Regarding Claim 7, Ullman discloses a STB in communication with a remote server, a television and an auxiliary display device, with a method of changing program channels comprising:

(a) receiving, at the STB, a virtual channel map (VCM) (Link File) from the remote server, the VCM including URL information associated with at least one program channel (refer but not limited to Col 3 lines 44-59); (b) the STB transmitting the VCM to the auxiliary display device (refer but not limited to Col 6 line 66 - Col 7 line 11; the STB inherently sending Link File containing URL information to internet connection device for processing in order to access the corresponding website); (c) storing the VCM in the auxiliary display device (then stores Link File containing URL information for processing); (d) the STB transmitting current tuned channel information to the auxiliary display device (the tuned channel information is then inherently

Art Unit: 2426

transmitted to internet connection device in order to obtain corresponding URLs); (e) the auxiliary display device correlating the current tuned channel information to a particular URL contained in the VCM utilizing the current tuned channel information provided by the STB (refer but not limited to Col 6 lines 44-48; such as time stamp of the channel); and

(f) the auxiliary display device presenting web content associated with the particular URL associated with the current tuned channel on the display of the auxiliary display (refer but not limited to Col 3 lines 44-59; Col 6 lines 44-48).

Ullman discloses transmitting tuned channel information to the internet connection device such as modem for receiving corresponding URLs for display but is not clear about transmitting the channel number to the internet connection device.

In an analogous art, Wu discloses using a channel parameter such as channel number at a certain time as a means to identify the corresponding Web address for internet access (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ullman's system to include a channel number as an alternative to identify the corresponding web site for auxiliary information access.

Alternatively, a person of skill in the art would have had good reasons to pursue the known options of using a channel number as an alternative for a selected program over a particular time period. It would require no more than "ordinary skill and common sense" to use the channel number as an alternative to represent a broadcast program.

Regarding Claim 8, Ullman further discloses (g) the auxiliary display device presenting a hyperlink on the display of the auxiliary display device, the hyperlink providing access to program channel data associated with a new tuned channel; and (h) activating the hyperlink to change the current tuned channel to the new tuned channel (refer but not limited to Col 9 lines 20-23).

Regarding Claim 9, Ullman further discloses the program channel data is correlated to a VCM stored in the STB, and the STB changes the current tuned channel to the new tuned channel (refer but not limited to Col 3 lines 52-55).

Regarding Claim 10, Ullman further discloses step (e) comprising a web browser residing in the auxiliary display device using the particular URL to access a web site, the web site providing the web content to be presented on the display of the auxiliary display device (refer but not limited to Col 3 lines 32-38).

Regarding Claim 11, Ullman further discloses step (d) is implemented in response to a user changing the current tuned channel (Col 3 lines 44-55).

Regarding Claim 12, Ullman further discloses step (d) is implemented in response to a user playing back a previously recorded program viewed on the television, the recorded program including program channel data (Col 10 lines 45-49).

Regarding Claim 13, Ullman further discloses the STB transmits the current channel information to the auxiliary display device via the remote server (Col 4 lines 19-23).

Regarding Claim 14, the system claim limitations has been discussed with regards to the method claims of Claim 1.

Regarding Claim 15, Ullman further discloses (c) a wireless communication bridge, wherein the STB transmits the current tuned channel information to the auxiliary display device via the wireless communication bridge (FIGs. 1, 2 and 5).

Regarding Claim 16, Ullman further discloses the auxiliary display device presents a hyperlink on the display of the auxiliary display device, the hyperlink providing access to program channel data associated with a new tuned channel when activated (Col 9 lines 20-23).

Regarding Claim 17, Ullman further discloses the STB includes a virtual channel map (VCM), and the program channel data is correlated to the VCM (Col 3 lines 52-55; Col 6 lines 44-48).

Regarding Claim 18, Ullman further discloses the auxiliary display device further comprises a web browser used to access a web site based on the particular URL, the web site providing data to be presented on the display of the auxiliary display device (Col 3 lines 32-38).

Regarding Claim 19, Ullman further discloses the STB transmits current tuned channel information to the auxiliary display device in response to a user changing the current tuned channel (Col 5 lines 62-67; Col 6 lines 1-4).

Regarding Claim 20, Ullman further discloses the communications system is a cable television (CATV) system (FIG. 5; Col 4 lines 50-53).

Regarding Claim 21, the system claim limitations has been discussed with regards to the method claims of Claim 7.

Regarding Claim 22, Ullman further discloses (d) a cable modem in communication with the remote server; and (e) a wireless communication bridge, wherein the STB transmits the current tuned channel information to the auxiliary display device via the remote server, the cable modem and the wireless communication bridge (Col 9 lines 63-67; the digital cable box 140 can make a wireless connection with the display unit).

Regarding Claim 23, Ullman further discloses the STB transmits current tuned channel information to the auxiliary display device in response to a user changing the current program channel (Col 3 lines 44-55).

Regarding Claim 24, Ullman further discloses the remote server is a cable head-end operated by a multiple system cable operator (MSO), the cable head-end comprising: (i) reverse data channel (RDC) equipment; (ii) a network control system (NCS); and (iii) a cable modem termination system (CMTS) (FIG. 5 is a diagram of another preferred embodiment including a digital cable box. FIG. 5 shows a digital back channel connecting from the digital cable box to content creation 4 which inherently is the cable head-end operated by a multiple system cable operator (MSO). The ordinary person in the art knows the digital cable head-end inherently includes (i) reverse data channel (RDC) equipment; (ii) a network control system (NCS); and (iii) a cable modem termination system (CMTS)).

Regarding Claim 25, Ullman further discloses the communications system is a cable television (CATV) system (FIG. 5 is a diagram of another preferred embodiment including a digital cable box).

### ***Response to Arguments***

5. Applicant's arguments filed 03/08/2011 have been fully considered but they are not persuasive.

#### **In reference to Applicant's arguments**

Ullman is directed towards a system for integrating video programming with information resources of the internet. Ullman, in col. 7 lines 42-53, discloses that a local PC or a digital cable box receives video signals and link files including URLs directly from a server. Alternatively, the link files can instead be received directly over the internet or another data channel. The PC or the

Art Unit: 2426

digital cable box decodes and retrieves web pages corresponding to the URLs included in the link files and displays the web pages along with the corresponding video program on a display screen. Therefore, Ullman at best discloses in col. 9 lines 52-55 that a client software in either the digital cable box or the PC decodes the URLs and displays the web pages and the video content on a single display monitor or on separate display monitors. Ullman nowhere shows or suggest transmitting any channel number from the PC (or the digital cable box) to any the computer screen or the TV. Ullman also does not teach determining the URL to be displayed using the channel number by the TV or by the computer screen.

Examiner's response

The Examiner respectfully disagrees. Ullman discloses...a specialized interface software 106 acts as an interface between the video programming and the internet functions and then retrieves URLs from the internet connections, interprets these URLs and direct the JAVA enabled browser to retrieve the particular relevant Web pages and synchronize the retrieved Web pages to the video content for display on the user's computer (Col 7 lines 42-53). Thus recitations from above, clearly shows the program related information from the digital cable box is required to be sent to the PC 16 in order for the PC to identify the corresponding URLs for particular Web pages and displays the Web pages on the PC so as to be synchronous with the video programming on the TV.

In reference to Applicant's arguments

Wu also does not overcome the deficiencies of Ullman. In that, Wu also does not show or suggest transmitting the mapping unit information or the channel parameter to the TV. And Wu's TV does not determine the URL based on any channel number. Therefore, determining the URL is performed by the digital cable box (or PC) in Ullman and by the web/TV client in Wu. These devices can be equated to Applicant's STB. However, both the references fail to teach any auxiliary display device (such as the TV, screen, etc) determining the URL.

Examiner's response



As Examiner mentions above, the related programming information is required by the PC which functions as an equated auxiliary device, in order to identify the related URLs from the link files received earlier or during the programming; the link files include URLs and related programming information such as program title and additional information etc (Col 6 lines 36-49). The link file is not clear about the tuned channel number, Wu reference thus is brought in to show the channel number also can be used to identify the related URLs. Thus, one of ordinary skill in the art would have recognized the tuned channel number is closely tied to a received program and would have also used the corresponding channel number as an alternative to identify a broadcast program.

#### ***Conclusion***

6. Claims 1-25 are rejected.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### ***Correspondence Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRED PENG whose telephone number is (571)270-1147. The examiner can normally be reached on Monday-Friday 09:30-19:30.

Art Unit: 2426

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hirl can be reached on (571) 272-3685. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Fred Peng/

Examiner, Art Unit 2426

/JOSEPH P. HIRL/

Supervisory Patent Examiner, Art Unit 2426

May 21, 2011